

WHAT IS CLAIMED IS:

1. A carrier having immobilized antigens or antibodies, comprising:

a carrier having a surface which is formed of a calcium phosphate based compound, and

antigens or antibodies each having a portion that is irrelevant to the antigen-antibody reaction, each of said antigens or antibodies being immobilized to the surface of the carrier through the irrelevant portion thereof,

wherein the surface of the carrier has a portion where the antigens or antibodies are not immobilized, and at least a part of the portion of the surface is coated with a protein having low interaction with antigens or antibodies.

2. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the carrier carries antiligands thereon and each antigen or antibody has a ligand bonded thereto, in which each antigen or antibody is immobilized to the carrier through the ligand and the antiligand.

3. The carrier having immobilized antigens or antibodies as claimed in claim 2, wherein each antiligand is carried by the surface of the carrier by adsorption.

4. The carrier having immobilized antigens or antibodies as claimed in claim 2, wherein each antibody has a constant region, and the ligand is bonded to the constant region of the antibody.

5. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the coating of the protein is made by adsorption of the carrier to the part of the portion of the surface.

6. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the protein is casein.

7. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the antigens or antibodies are stabilized.

8. The carrier having immobilized antigens or antibodies as claimed in claim 7, wherein the antigens or antibodies are stabilized by treating the carrier with a stabilizing agent.

9. The carrier having immobilized antigens or antibodies as claimed in claim 7, wherein the antigens or antibodies are stabilized by treating the carrier with a cross-linking agent which cross-links the antigens or antibodies and the ligands and/or antiligands.

10. The carrier having immobilized antigens or antibodies as claimed in claim 9, wherein the cross-linking agent is a bivalent cross-linking agent.

11. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein a portion of the carrier which is in the vicinity of the surface thereof is formed into a dense structure.

12. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the carrier includes a carrier body having a surface thereof, and a coating made of a calcium phosphate based compound and provided on the surface of the carrier body.

13. The carrier having immobilized antigens or antibodies as claimed in claim 12, wherein the carrier is produced by colliding porous particles of the calcium phosphate based compound to the carrier body.

14. The carrier having immobilized antigens or antibodies as claimed in claim 13, wherein the porous particles are produced by agglutination bonding of primary particles of the calcium phosphate based compound.

15. The carrier having immobilized antigens or antibodies as claimed in claim 1, wherein the antibodies are IgG.

16. A method of manufacturing a carrier having immobilized antigens or antibodies, the method comprising the steps of:

an immobilizing step for immobilizing antigens or antibodies to a surface of a carrier which is formed of a calcium phosphate based compound through portions of the antigens or antibodies that are irrelevant to the antigen-antibody reaction, and

a coating step for coating at least a part of a portion of the surface of the carrier, where the antigens or antibodies are not immobilized, with a protein having low interaction with antigens or antibodies.

17. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the immobilizing step includes:

a step of letting antiligands to be carried on the surface of the carrier; and

a step of contacting antigens or antibodies to which ligands having affinity to the antiligands are bonded, to the carrier.

18. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 17, wherein the antiligands are carried on the carrier by being adsorbed by the surface of the carrier.

19. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 17, wherein the ligands are bonded to constant regions of the antibodies.

20. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the coating step is carried out by letting the protein to be adsorbed to the part of the portion of the surface of the carrier.

21. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the protein is casein.

22. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the method further comprises, after the immobilizing step, a step of stabilizing the antigens or antibodies.

23. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 22, wherein the

stabilizing step is carried out by treating the carrier with a stabilizing agent.

24. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 22, wherein the stabilizing step is carried out by treating the carrier with a cross-linking agent for bonding the antigens or antibodies to the ligands and/or antiligands.

25. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 24, wherein the cross-linking agent is a bivalent cross-linking agent.

26. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein a portion of the carrier which is in the vicinity of the surface thereof is formed into a dense structure.

27. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the carrier includes a carrier body having a surface thereof, and a coating made of a calcium phosphate based compound and provided on the surface of the carrier body.

28. The method of manufacturing a carrier having immobilized

antigens or antibodies as claimed in claim 27, wherein the carrier is produced by colliding porous particles of the calcium phosphate based compound to the carrier body.

29. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 28, wherein the porous particles are produced by agglutination bonding of primary particles of the calcium phosphate based compound.

30. The method of manufacturing a carrier having immobilized antigens or antibodies as claimed in claim 16, wherein the antibodies are IgG.